

REMARKS

Claims 1 and 3-41 were pending in the above-identified application upon reopening of prosecution in the above-identified patent application. Claims 1, 13, 22, and 41 are now being amended as indicated above. Claim 30 is being canceled.

The Office Action dated January 29, 2010 objected to the specification as failing to provide proper antecedent basis for “a computer program stored in a computer readable medium” as recited in claim 39. Applicants respectfully traverse the objection.

Applicants specifically draw the Examiner’s attention to Applicants’ specification at page 10, lines 22-24, which states “In use, the computing platform 1 loads a process to be run on the processor 5 from the disk 30 into the memory space 10.” Applicants submit that one of ordinary skill in the art would recognize disk 30 as being a computer readable medium and recognize “a process to be run on the processor” to be a computer program. Thus, Applicants’ written description provides clear support for quoted language from claim 39, so that the meaning of the terms in claim 39 is ascertainable by reference to the written description. Applicants therefore request reconsideration and withdrawal of the objection to the specification.

The Office Action dated January 29, 2010 further rejects claims 1, 3-12, 17-20, 22-29, 31-33, 36, and 38-41 and objects to claims 13-16, 21, 30, 34, 35, and 37.

Claims 1, 22, and 41 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In response, claims 1, 22, and 41 are being amended.

Claim 1 now recites, “a system call monitor implemented in the computer platform and operating to detect predetermined system calls and data manipulation by the process.” Accordingly, the system call monitor of claim 1 is tied to a physical system “the computer platform.” Further, claim 1 recites that system call monitor as “operating to detect predetermined system calls,” which is not simply functional language, but instead requires detection of the activity of a physical system, i.e., activity of the computer platform. Accordingly, claim 1 is not covering non-statutory software but is directed to an apparatus physically implemented and operating in a computer platform. Claim 1 is thus directed to statutory subject matter.

Claim 22 as amended recites, “A data handling method ... comprising ... detecting in the computer platform ... predetermined system calls involving the writing of data outside the process.” As required by *In re Bilski et al.*, the method of claim 22 is now clearly tied to a particular machine, i.e., the computer platform, and serves to detect activities, e.g., “system calls” within a particular machine. Accordingly, claim 22 recites statutory subject matter.

Claim 41 as amended recites, “a system call monitor implemented in the computer platform and operating to detect predetermined system calls.” Accordingly, claim 41 also requires a physical implementation of the recited apparatus and requires actual operation, rather than reciting mere functional language. Accordingly, claim 41 does not cover non-statutory software but is directed to statutory subject matter.

In view of the above amendments of claims 1, 22, and 41, Applicants request reconsideration and withdrawal of the rejection under 35 U.S.C. § 101.

Claims 1, 4, 5, 22, 25-27, and 39-41 were rejected under 35 U.S.C. § 103(a) as unpatentable over the paper of McIlroy et al., entitled “Multilevel Security in the UNIX Tradition,” (1995), hereinafter McIlroy. Applicants respectfully traverse the rejection.

Independent claim 1 distinguishes over McIlroy at least by reciting, “a system call monitor implemented in the computer platform and operating to detect predetermined system calls and data manipulation by the process so as to modify identifiable characteristics of the data, wherein the system call monitor includes supervisor code that is executed within a program flow of the process.”

McIlroy discloses a security system based on priority levels assigned to files, objects, and processes by an operating system that McIlroy refers to as “IX”, and McIlroy uses the IX operating system to restrict data flow based on the priority levels. For example, the IX operating system prevents a process from accessing a file or process that is tagged as having a higher priority level. McIlroy fails to teach use of a system call monitor as recited in claim 1. McIlroy clearly fails to disclose a system call monitor. McIlroy further fails to disclose or suggest “supervisor code that is executed within a program flow of the process” being monitored.

In accordance with an aspect of the invention, additional code can be inserted into the program flow of a process at points where the process manipulates data. Accordingly, the nature of data can be tagged at a level not envisioned by McIlroy. For example, see McIlroy page 2, lines 2-4, which states, “IX will protect information from automated theft by

unauthorized users and from accidental disclosure, but will not perfectly protect it from being leaked laboriously by dishonest programs run on behalf of authorized people.”

Accordingly, claim 1 is patentable over McIlroy at least because McIlroy fails to teach or suggest a system call monitor including code executed as recited in claim 1.

Claims 4 and 5 depend from claim 1 and are patentable over McIlroy for at least the same reasons that claim 1 is patentable over McIlroy.

Independent claim 22 is amended to recite “supervisor code administers the method by controlling the process at run time.” McIlroy fails to disclose or suggest use of supervisor code controlling the process at run time. Accordingly, claim 22 is patentable over McIlroy.

Claims 25-27, 39, and 40 depend from claim 22 and are patentable over McIlroy for at least the same reasons that claim 22 is patentable over McIlroy.

Independent claim 41 distinguishes over McIlroy at least by reciting, “a system call monitor implemented in the computer platform and operating to detect predetermined system calls and data handled by the process, wherein the system call monitor includes supervisor code that is executed within a program flow of the process.” As noted above, McIlroy fails to teach or suggest a system call monitor including supervisor code within the program flow of the process. Accordingly, claim 41 is patentable over McIlroy.

For the above reasons, Applicants request reconsideration and withdrawal of this rejection under 35 U.S.C. § 103.

Claim 7 was rejected under 35 U.S.C. § 103(a) as unpatentable over McIlroy in view of the paper of Paul C. Clark, entitled “Policy-Enhanced Linux,” (2000), hereinafter Clark. Applicants respectfully traverse the rejection.

Claim 7 depends from claim 1, which is patentable over McIlroy at least because McIlroy fails to teach or suggest a system call monitor including supervisor code within the program flow of the process. Clark is cited for disclosing label databases and associated managers. However, such teaching does not alter the reasons for patentability of claim 1 over McIlroy. Accordingly, claim 1 and claim 7, which depends from claim 1, are patentable over the combination of McIlroy and Clark.

For the above reasons, Applicants request reconsideration and withdrawal of this rejection under 35 U.S.C. § 103.

Claims 3, 6, 23, 24, and 28 were rejected under 35 U.S.C. § 103(a) as unpatentable over McIlroy in view of U.S. Pat. No. 6,981,140, hereinafter Choo. Applicants respectfully traverse the rejection.

Claims 3 and 6 depend from claim 1, which is patentable over McIlroy at least because McIlroy fails to teach or suggest a system call monitor including supervisor code within the program flow of the process. Choo is directed to encryption and decryption of data transfers. However, Choo is not directed to monitoring processes, and when combined with McIlroy fails to disclose or suggest a system call monitor including supervisor code as recited in claim 1. Accordingly, claim 1 and claims 3 and 6, which depend from claim 1, are patentable over McIlroy and Choo.

Claims 23, 24, and 28 depend from claim 22, which is patentable over McIlroy at least because McIlroy fails to disclose or suggest use of supervisor code controlling the process at run time. Combining Choo, which teaches transfers with encryption and decryption, with McIlroy still fails to suggest supervisor code controlling the process at run time. Accordingly, claim 22 and claims 23, 24, and 28, which depend from claim 22, are patentable over the combination of McIlroy and Choo.

For the above reasons, Applicants request reconsideration and withdrawal of this rejection under 35 U.S.C. § 103.

Claims 8-12, 17-20, 29, 31-33, and 36 were rejected under 35 U.S.C. § 103(a) as unpatentable over McIlroy in view of U.S. Pat. No. 5,909,688, hereinafter Yoshioka. Applicants respectfully traverse the rejection.

Claims 8-12 and 17-20 depend from claim 1, which is patentable over McIlroy at least because McIlroy fails to teach or suggest a system call monitor including supervisor code within the program flow of the process. Yoshioka is directed to information management and even when combined with McIlroy fails to disclose or suggest a system call monitor including supervisor code as recited in claim 1. Accordingly, claim 1 and claims 8-12 and 17-20, which depend from claim 1, are patentable over McIlroy and Yoshioka.

Claims 29, 31-33, and 36 depend from claim 22, which is patentable over McIlroy at least because McIlroy fails to disclose or suggest use of supervisor code controlling the process at run time. Combining Yoshioka, which teaches data management, with McIlroy still fails to suggest supervisor code controlling the process at run time. Accordingly, claim

22 and claims 29, 31-33, and 36, which depend from claim 22, are patentable over the combination of McIlroy and Yoshioka.

For the above reasons, Applicants request reconsideration and withdrawal of this rejection under 35 U.S.C. § 103.

Claim 38 was rejected under 35 U.S.C. § 103(a) as unpatentable over McIlroy in view of U.S. Pat. No. 5,684,948, hereinafter Johnson. Applicants respectfully traverse the rejection.

Claim 38 depends from claim 22, which is patentable over McIlroy at least because McIlroy fails to teach or suggest use of supervisor code controlling the process at run time. Johnson is cited for disclosing addressable privilege levels of code, and refers to one privilege level as supervisor. Applicants note that Johnson's use of the term supervisor as corresponding to a privilege level differs from Applicants' use which does not refer to a difference in privilege. For example, Applicants' specification describes that supervisor code 120 can be loaded into user memory with the code for the process and run as part of the program flow of the process. Further, Johnson fails to teach code (supervisor code or otherwise) that controls a process at run time, particularly a process including "detecting in the computer platform both (i) a predetermined data type based on a tag or label associated with the data or based on the format of the data and (ii) predetermined system calls involving the writing of data outside the process," as recited in claim 22. Accordingly, claim 22 and claim 38, which depends from claim 22, are patentable over the combination of McIlroy and Johnson.

For the above reasons, Applicants request reconsideration and withdrawal of this rejection under 35 U.S.C. § 103.

Claims 13-16, 21, 30, 34, 35, and 37 were objected to as dependent upon a rejected claim but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 30 is canceled in view of the amendment to claim 22. Claims 13-16, 21, 34, 35, and 37 remain in dependent form but Applicants request reconsideration and withdrawal of the objection to claims 13-16, 21, 34, 35, and 37 at least because their respective base claims and any intervening claims are patentable for the reasons given above.

For the above reasons, Applicants respectfully request allowance of the application including claims 1, 3-29, and 31-41.

Respectfully submitted,

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